

## A B S T R A C T

## A METHOD OF FABRICATING A LIGHT DUCT OF THERMOPLASTIC MATERIAL

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The invention relates to a method of fabricating a light duct (14) of thermoplastic material, the duct comprising a light relay (26) constituted by a rectangular section bar for conveying light along its longitudinal axis (A-A') referred to as a "first" axis, and provided at one of its ends both with a wall (28) that is inclined relative to said first axis, and with a lens (32), the axis of revolution (B-B') of the lens being contained in a longitudinal plane of symmetry, said duct (14) presenting a given maximum height  $H_{\max}$  beyond the thickness of the lens and a given mean length  $L_{\text{moy}}$  along its longitudinal axis (A-A'). According to the invention, it is made as a single piece by injection molding said thermoplastic material in a mold (1) presenting a cavity of shape identical to that of the duct, the injection taking place through a feed orifice disposed on one side of said cavity over a face that is substantially parallel to the plane defined by said axes (A-A', B-B'), said feed orifice presenting a height  $h$  lying in the range  $0.2 H_{\max}$  and  $H_{\max}$ , and a length  $\ell$  lying in the range  $0.2 L_{\text{moy}}$  and  $0.8 L_{\text{moy}}$ , the thermoplastic material being injected at a rate lying in the range  $400 \text{ mm}^3/\text{s}$  to  $1500 \text{ mm}^3/\text{s}$ .